



Materials Declaration Form

IPC Form Type *	1752 Distribute	Version	2
Sectionals *	Material Info Manufacturing Info	Subsectionals *	A-D *: Required Field

Supplier Information			
Company Name *	STMicroelectronics	Response Date *	2020-02-28
Company Unique ID	NL 008751171B01		
Contact Name *	Refer to Supplier Comment section		Refer to Supplier Comment section
Contact Phone *	Refer to Supplier Comment section	Contact Email *	Refer to Supplier Comment section
Authorized Representative *	Floriana SAN BIAGIO	Representative Title	AMS MD CHAMPION
Representative Phone *	Refer to Supplier Comment section	Representative Email *	Refer to Supplier Comment section
Supplier Comment	Online Technical Support - STMicroelectronics : http://www.st.com/web/en/support/support.html		

Uncertainty Statement


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Legal Statement	
Supplier Acceptance *	true
Legal Declaration *	Standard

Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
	9IW4*MV5WAB6	A	999L	2020-02-28
Amount	UoM	Unit type	ST ECOPACK Grade	
79.69	mg	Each	ECOPACK® 2	
Comment	ECOPACK® 2 is STMicroelectronics trade name for ROHS compliant device without Brominated and Chlorinated compound (900ppm) and without Antimony oxide flame retardant (in each organic material)			

Manufacturing information				
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles		 life.augmented
3	260	3		
Bulk Solder Termination	Terminal Plating	Terminal Base Alloy	Comment	
Not Applicable	Tin (Sn), matte, annealed	Copper Alloy	0	

Package Designator	Size	Nbr of instances	Shape	
DSO	4.9 x 3.9	10	gull wing	
Comment	W4 SSOP 10L 3.9 BODY 1 PITCH; MDF is valid for VIPER013LS and VIPER013LSTR			

QueryList : RoHS Directive 2011/65/EU-July 2011 – Annex II amended by Directive 2015/863-March 2015	
Query	Response
1 - Product(s) meets EU RoHS requirement without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	FALSE
3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
4 - Product(s) does not meet EU RoHS requirements and is not under exemptions	FALSE
Exemption Id.	Description

QueryList : ELV directive : 2000/53/EC amended 2017/2096 _November 2017	
Query	Response
1 - Product(s) meets EU ELV requirements without any exemptions	TRUE
2 - Product(s) meets EU RoHS requirements by application of the selected exemption(s)	FALSE
Exemption Id.	Description

QueryList : California Prop65 list, dated 3rd January 2020			
Query			Response
1 - The product does not contain identified substance from California Prop 65 List, no exposure to consumers is foreseen			FALSE
2 - The product is containing below substance(s) from California Prop 65 List, no exposure to consumers is foreseen			TRUE
Substance	amount in product (mg)	Application	ppm in product
Nickel	0.02	die	238

QueryList : REACH-16th January 2020				
Query				Response
1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product
2 - Product(s) does not contain REACH Substances Of Very High Concern in any Embedded article nor Homogeneous Material above the limits per the definition within REACH				TRUE
CategoryLevel_Name	CategoryLevel_Threshold	Amount in Embedded Article / Homogeneous Material (mg)	Application - Article / Homogeneous Material	ppm in Article /Homogeneous Material

QueryList : Korea Chemical Control Act_ 27 Dec 2017 update				
Query				Response
The Product does contain at least one of the substances listed in Chemical Control Act				NO
Substance	Homogeneous Material impacted	Content in Homogeneous Material (mg)	Concentration in the material(%)	Application Purpose

Material Composition Declaration : note : Substance present with less 0.001mg will not be declared in this document						Mfr Item Name	91W4*MV5WAB6				5999885.0	999988.0
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Dies	M-011 Other inorganic materials	2.838	mg	supplier	die	Silicon(Si)	7440-21-3		2.737	mg	964412	34346
				supplier	metallisation	Aluminium(Al)	7429-90-5		0.035	mg	12333	439
				supplier	metallisation	Chromium(Cr)	7440-47-3		0.001	mg	352	13
				supplier	metallisation	Copper(Cu)	7440-50-8		0.001	mg	352	13
				supplier	metallisation	Gold(Au)	7440-57-5		0.004	mg	1409	50
				supplier	metallisation	Nickel(Ni)	7440-02-0		0.019	mg	6695	238
				supplier	metallisation	Titanium(Ti)	7440-32-6		0.001	mg	352	13
				supplier	metallisation	Tungsten(W)	7440-33-7		0.001	mg	352	13
				supplier	Passivation	Silicon nitride(SiN)	12033-89-5		0.009	mg	3171	113
				supplier	passivation	Silicon oxide	7631-86-9		0.030	mg	10571	376
Leadframe	M-004 Copper and its alloys	26.442	mg	supplier	alloy & coating	Copper(Cu)	7440-50-8		25.462	mg	962938	319513
				supplier	alloy & coating	Iron(Fe)	7439-89-6		0.661	mg	24998	8295
				supplier	alloy & coating	Phosphorus metal	7723-14-0		0.026	mg	983	326
				supplier	alloy & coating	Zinc(Zn)	7440-66-6		0.026	mg	983	326
				supplier	alloy & coating	Silver (Ag)	7440-22-4		0.264	mg	9984	3313
Die attach	M-015 Other organic materials	0.352	mg	supplier	glue	Acrylate monomer	61434-04-6		0.245	mg	695000	3072
				supplier	glue	Acrylate oligomer	proprietary		0.088	mg	250000	1105
				supplier	glue	Bismaleimide resin	proprietary		0.018	mg	50000	221
				supplier	glue	Epoxy resin	proprietary		0.002	mg	5000	22
Bonding wires	M-004 Copper and its alloys	1.642	mg	supplier	wire	Copper (Cu)	7440-50-8		1.593	mg	970000	19987
				supplier	wire	Palladium (Pd)	7440-05-3		0.049	mg	30000	618
Encapsulation	M-015 Other organic materials	45.733	mg	supplier	mold compound	Epoxy Resin 1	proprietary		0.229	mg	5000	2869
				supplier	mold compound	Epoxy Resin 2	proprietary		0.229	mg	5000	2869
				supplier	mold compound	Epoxy Resin 3	proprietary		0.229	mg	5000	2869
				supplier	mold compound	Phenol Resin	proprietary		0.915	mg	20000	11478
				supplier	mold compound	Carbon black	1333-86-4		0.046	mg	1000	574
				supplier	mold compound	Amorphous silica	60676-86-0		43.629	mg	954000	547488
connections coating	Solder	2.685	mg	supplier	mold compound	Crystal silica	14808-60-7		0.457	mg	10000	5739
				supplier	solder alloy	Tin (Sn)	7440-31-5		2.685	mg	1000000	33690